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AB0459 MORTALITY OF RHEUMATOID VASCULITIS AGGRAVATED BY CLINICALLY LATENT TUBERCULOSIS – A RETROSPECTIVE CLINICOPATHOLOGIC STUDY OF 161 AUTOPSY PATIENTS

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Background: Systemic vasculitis of autoimmune origin (e.g. rheumatoid vasculitis – RV) plays a pivotal role in the pathogenesis of rheumatoid arthritis (RA) [1]. RV may be characterized by *non-specific inflammation (nsRV)* with or without *fibrinoid necrosis (fnRV)* or by *granulomatous transformation of blood vessels (grRV)* [1].

The prevalence and mortality of tuberculosis (TB) is higher in rheumatoid arthritis (RA) than in the general population.

Objectives: The aim of this study was to assess the influence of dormant (inactive), clinically latent TB (with or without subclinical atypical miliary exacerbation) on the mortality of rheumatoid vasculitis (RV).

Methods: At the National Institute of Rheumatology 9475 patients died between 1969 and 1992; among them 161 with RA and all of them were autopsied [1].

RA was confirmed clinically according to the criteria of the ARA.

nsRV alone or in combination with fnRV or grRV was diagnosed at autopsy, and confirmed by a detailed review of extensive histological material [1].

The prevalence fibrous (fTB), fibrocasseous (fcTB) or miliary TB (mTB) was diagnosed and characterized histologically, reviewing retrospectively the clinical and pathological reports [1].

From each patient a total of 50-100 tissue blocks of 12 organs (heart, lung, liver, spleen, kidneys, pancreas, gastrointestinal tract, adrenal glands, skeletal muscle, peripheral nerve, skin and brain) were studied microscopically.

The possible role of fTB, fcTB or mTB on the mortality due to nsRV, fnRV or grRV was analyzed with Pearson's chi-squared (χ^2) test.

Results: nsRV complicated RA in 33 (20.49%) of 161 patients, in combination with fnRV in 17 (51.51 %) or with grRV in 10 (30.30 %) of 33 cases.

The nsRV led to death in 19 (57.57 %) of 33 patients, in combination with fnRV in 11 (64.71 % of 17) or with grRV in 7 (70.0 % of 10) cases; the mortality due to nsRV, fnRV or grRV showed an increasing tendency.

Post-primary TB was associated with RA in 21 (13.04%) of 161 patients, 12 (57.14% of 21) were fTB, and 9 (42.86% of 21) fcTB. One of 12 fTB and 5 of 9 fcTB were complicated with discrete miliary dissemination (mTB) in 6 (3.7% of 161; 28.57% of 21) RA patients.

TB (n=21) was associated with fatal nsRV in 5, with fnRV in 3, with grRV in 3 of 21 cases.

The fTB (n=12) was associated with fatal nsRV in 1, with fnRV in 1, with grTB in 1 of 12 cases.

The fcTB (n=9) was associated with fatal nsRV in 4, with fnRV in 3, with grTB in 3 of 9 cases.

mTB (n=6) was associated with fatal nsRV in 3, with fnRV in 2, with grTB in 3 of 6 cases.

There was a significant and positive correlation between fcTB and mortality of nsRV (c: 0.76, $\chi^2=9.7593$, $p<0.0017$), between fcTB and mortality of fnRV (c: 0.80, $\chi^2=6.5701$, $p<0.0103$), between fcTB and mortality of grRV (c: 0.90, $\chi^2=12.5835$, $p<0.00038$). The correlation was also positive and significant between mTB and mortality of nsRV (c: 0.79, $\chi^2=5.3406$, $p<0.0208$), between mTB and mortality of grRV (c: 0.95, $\chi^2=20.8706$, $p<0.0000049$).

The relationships were not significant between TB or fTB and mortality of nsRV, fnRV or grRV, nor between mTB and mortality of fnRV.

Conclusion: Recognition of indolent TB is a great challenge especially before starting immunosuppressive or biological therapy for RA.

TB may lead directly to death by erosion of pulmonary arteries with massive pulmonary bleeding, by hematogenous miliary dissemination (Landouzy typhobacillos) or by canalicular spread as a cavernous chronic process (phthisis tuberculosa), etc. Discrete miliary dissemination may be also lethal caused by circulatory failure [1].

The contribution of TB to the mortality of complications of RA or of allied disorders is plausible and can never be excluded.

According to our data the risk of mortality due to nsRV, fnRV or grRV showed an increasing tendency, and fnRV or grRV should be regarded the most severe forms of nsRV in RA.

The positive and significant correlation between fcTB or mTB and mortality of nsRV, fnRV or grRV represents a positive contribution to the fatal outcome due to nsRV, fnRV or grRV.

References:

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AB0460 INTERLEUKIN-6 INHIBITION WITH TOCILIZUMAB FOR THE TREATMENT OF GIANT CELL ARTERITIS AND POLYMYALGIA RHEUMATICA IN PATIENTS WITH SERIOUS COMORBIDITIES

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TABLE.

CLÍNICAL PHENOTYPES	Cases N (%)	COLCH	COS	Dosis total IS	AZA	MTX	CYA	MMF	TLD	APR	DAP
Oral ulcers	110 (99.1)	85 (77.9)	81 (73.6)	51 (46.4)	30 (27.3)	25 (22.7)	14 (12.7)	2 (1.8)	6 (5.5)	6 (5.5)	3 (2.7)
Genital ulcers	69 (62.2)	56 (81.2)	51 (74)	32 (46.4)	17 (24.6)	16 (23.2)	10 (14.5)	1 (1.5)	5 (7.2)	2 (3.4)	3 (4.3)
Cutaneous lesions	76 (68.5)	58 (76.3)	61 (80.3)	52 (68.4)	32 (42.1)	22 (29)	9 (11.8)	0	5 (6.6)	6 (7.9)	3 (4)
Ocular manifestations	39 (35.1)	27 (69.2)	36 (92.3)	19 (48.7)	17 (43.6)	12 (30.8)	11 (28.2)	2 (5.1)	4 (10.3)	2 (5.1)	2 (5.1)
Neurological involvement	20 (18)	12 (60)	15 (75)	15 (75)	3 (15)	4 (20)	3 (15)	1 (5)	0	0	1 (5)
Vascular manifestations	11 (10)	8 (72.7)	9 (81.8)	5 (45.5)	3 (27.3)	3 (27.3)	1 (9.1)	0	0	0	0
Gastrointestinal involvement	4 (3.6)	2 (50)	1 (25)	1 (25)	1 (25)	0	0	0	0	0	0
TOTAL	111	85 (76.6)	85 (76.6)	51 (46)	30 (27)	25 (22.5)	14 (12.6)	2 (1.8)	6 (5.4)	6 (5.4)	3 (2.7)

TABLE 2.

CLINICAL PHENOTYPES	BT	ADA	IFX	ETN	TCZ	No improvement	Partial improvement	Complete response
Oral ulcers	28 (35.5)	22 (20)	12 (11)	3 (2.7)	2 (1.8)	22 (20)	22 (20)	66 (60)
Genital ulcers	17 (24.7)	13 (18.8)	8 (11.6)	2 (2.9)	1 (1.4)	16 (23.2)	12 (17.4)	41 (59.4)
Cutaneous lesions	21 (27.6)	18 (23.7)	8 (10.5)	3 (4)	2 (2.6)	8 (10.5)	19 (25)	49 (64.5)
Ocular manifestations	19 (50)	16 (42.1)	9 (23.7)	1 (2.6)	2 (5.3)	0	8 (21)	30 (79)
Neurological involvement	7 (35)	2 (10)	4 (20)	1 (5)	0	3 (15)	5 (25)	12 (60)
Vascular manifestations	4 (36.4)	3 (27.3)	2 (18.2)	1 (9.1)	1 (9.1)	2 (18.2)	4 (36.4)	5 (45.5)
Gastrointestinal involvement	0	0	0	0	0	1 (25)	1 (25)	2 (50)
TOTAL	28 (25.2)	22 (19.8)	12 (10.8)	3 (2.7)	2 (1.8)	22 (19.8)	22 (19.8)	67 (60.4)

Abbreviations: COLCH: Colchicine; OCS: Oral Corticosteroids; IS: Immunosuppressants; AZA: Azathioprine; MTX: Methotrexate; CYA: Cyclosporine A; MMF: Mycophenolate Mofetil; TLD: Talidomide; APR: Apremilast; DAP: Dapsone; BT: Biologic Therapy; ADA: Adalimumab; IFX: Infliximab; ETN: Etanercept; TCZ: Tocilizumab